Arsenii Ashukha

PhD Candidate at Bayesian Methods Research Group
Student Researcher Samsung AI Center Moscow
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EDUCATION

- PhD Candidate, ***National Research University Higher School of Economics***, 2017 - Now
  Topic: Probabilistic deep learning, Advisor: Dmitry Vetrov
- MSc in Applied Math and Computer Science, **Moscow Institute of Physics and Technology**, 2017 (with distinction)
  Thesis: *Sparsification of DNNs probabilistic framework*, Advisors: Dmitry Vetrov and Alexey Dral
- BSc in Applied Math and Computer Science, **Bauman Moscow State Technical University**, 2015
  Thesis: Bigram anchor words topic modeling, Advisor: Natalia Loukachevitch

PROFESSIONAL EXPERIENCE

- Student Researcher at ***Samsung AI Center*** (2018 - Now):
  Research on probabilistic deep learning, ensembles of DNNs, uncertainty estimation.
- Student Researcher at ***Yandex Research*** & ***University of Amsterdam*** (2017 - 2018):
  Research on Bayesian deep learning for a group-level sparsification and uncertainty estimation.
- Research Intern at ***Lab of Deep Learning and Bayesian Methods HSE*** (2016 - 2017):
  Research on Bayesian deep learning for sparsification and incremental learning.

My responsibility included: selecting research directions, scheduling and executing research agenda, development of machine learning models and algorithms, writing papers.

PUBLICATIONS

- Arsenii Ashukha*, Alexander Lyzhov*, Dmitry Molchanov*, Dmitry Vetrov, **Pitfalls of In-Domain Uncertainty Estimation and Ensembling in Deep Learning**, ICLR (2020). *equal contribution.
- Kirill Neklyudov*, Dmitry Molchanov*, Arsenii Ashukha*, Dmitry Vetrov, **Variance Networks: When Expectation Does Not Meet Your Expectations**, ICLR (2019). *equal contribution.
- Andrei Atanov*, Arsenii Ashukha*, Kirill Struminsky, Dmitry Vetrov, Max Welling, **The Deep Weight Prior**, ICLR (2019). *equal contribution.
- Andrei Atanov, Arsenii Ashukha, Dmitry Molchanov, Kirill Neklyudov, Dmitry Vetrov, **Uncertainty Estimation via Stochastic Batch Normalization**, Workshop Track ICLR (2018).
- Kirill Neklyudov, Dmitry Molchanov, Arsenii Ashukha, Dmitry Vetrov, **Structured Bayesian Pruning via Log-Normal Multiplicative Noise**, NeurIPS (2017).
- Dmitry Molchanov*, Arsenii Ashukha*, Dmitry Vetrov, **Variational Dropout Sparsifies Deep Neural Networks** ICML (2017). *equal contribution.
- Dmitry Molchanov, Arseniy Ashuha, Dmitry Vetrov, **Dropout-based automatic relevance determination**, Bayesian Deep Learning Workshop NeurIPS (2016).

Full list: scholar.google.com/citations?user=IU-kuP8AAAAJ.

MISCELLANEOUS

- **Reviewing:**
  - Conferences: ICML (2019, 2020), NeurIPS 2019 (top-50% highest-scoring reviewers), ICLR 2020
  - Workshops: INNF (since 2019, invertibleworkshop.github.io), BDL (since 2017, bayesiandeeplearning.org)
- **Thesis supervision**:
  - Andrei Atanov (B.Sc., 2017, M.Sc., ongoing)
  - Alexander Lyzhov (M.Sc., ongoing)
- **Teaching:**
  - Machine Learning at MIPT: TA (2016), Lecturer (2017, 2018)
  - Supervisor of scientific seminars on machine learning at HSE and Yandex (since 2017)
  - TA at **Deep|Bayes** Summer School on Bayesian Deep Learning (since 2017), http://deepbayes.ru
- **Open-source contributions**: See https://github.com/senya-ashukha.